

REMARKS

This application has been carefully reviewed in light of the Office Action dated December 4, 2003 (Paper No. 9). Claims 1 to 6, 153 and 155 are presented for examination, with Claims 7 to 152, 154 and 156 having been withdrawn. Claims 1 to 3, 153 and 155 have been amended, and Claims 1, 153 and 155 are in independent form. Reconsideration and further examination are respectfully requested.

In the Office Action, Claims 1 to 6, 153 and 155 were rejected under 35 U.S.C. § 102(b) over U.S. Patent No. 5,483,261 (Yasutake). Reconsideration and withdrawal of this rejection is respectfully requested.

The present invention generally concerns the processing of position information in which a plurality of designated positions are detected at a preceding time (or first step) and a current time (or second step). A corresponding designated position is identified from the plurality of designated positions detected at the preceding time for each of the plurality of designated positions detected at the current time. According to one feature of the invention, a travel path is recognized from each of the plurality of designated positions detected at the preceding time to the corresponding one of the plurality of designated positions detected at the current time.

By virtue of the foregoing, in which a travel path is recognized from each of the plurality of designated positions detected at the preceding time (or first step) to the corresponding one of the plurality of designated positions detected at the current time (or second step), a combination of paths can be interpreted for performing a designated operation.

Referring specifically to the claims, independent Claim 1 as amended is directed to a position information processing apparatus for processing position information including designated position detector means for detecting a plurality of concurrently designated positions at a current and a preceding time. The position information processing apparatus also includes identifying means for identifying a corresponding designated position from the plurality of designated positions detected at the preceding time for each of the plurality of designated positions detected at the current time. In addition, the position information processing apparatus includes travel path recognizer means for recognizing respective travel paths of the plurality of designated positions by recognizing a travel path from each of the plurality of designated positions detected at the preceding time to the corresponding one of the plurality of designated positions detected at the current time.

Independent Claim 153 as amended is directed to a position information processing method for processing position information including a first detecting step of detecting a plurality of concurrently designated positions. The method also includes a second detecting step of detecting a plurality of concurrently designated positions, subsequent to the first detection step, and an identifying step of identifying a corresponding designated position from the plurality of designated positions detected in the first detecting step for each of the plurality of designated positions detected in the second detecting step. The method also includes a travel path recognition step of recognizing respective travel paths of the plurality of the designated positions by recognizing a travel path from each of the plurality of designated positions detected in the first detecting step to the corresponding one of the plurality of designated positions detected in the second detecting step.

Independent Claim 155 as amended is directed to a computer-readable storage medium storing a position information program for controlling a computer to perform processing of position information. The program includes codes for causing the computer to perform a first acquisition step of acquiring a plurality of concurrently designated positions, and a second acquisition step of acquiring a plurality of concurrently designated positions, subsequent to the first acquisition step. The program also includes codes for causing the computer to perform an identifying step of identifying a corresponding designated position from the plurality of designated positions acquired in the first acquisition step for each of the plurality of designated positions acquired in the second acquisition step, and a travel path recognition step of recognizing respective travel paths of the plurality of the designated positions by recognizing a travel path from each of the plurality of designated positions acquired in the first acquisition step to the corresponding one of the plurality of designated positions acquired in the second acquisition step.

The applied reference of Yasutake is not seen to disclose or suggest at least the feature of recognizing a travel path from each of the plurality of designated positions detected at the preceding time (or first step) to the corresponding one of the plurality of designated positions detected at the current time (or second step).

As understood by Applicants, Yasutake teaches an interactive graphics system including one or more semi-transparent screens with a rear-mounted video camera, where the camera is arranged to detect the shadows of objects, such as fingers, touching the screens. See Yasutake, column 2, lines 17 to 21. The areas touched by a user are identified as control objects, and each control object is reduced to a single set of coordinates representing the centroids of the control objects. The coordinates of control objects are

compared to previously-stored control objects to determine if they represent old objects that have moved or new objects that have newly appeared. To accomplish this, the distance between all new objects and all old objects is calculated. The positions of old objects are updated to that of the nearest new object, provided that they are within an acceptable distance. If they are not within an acceptable distance, the old object is removed and a new object is entered. See Yasutake, column 6, line 65 to column 7, line 7.

However, Yasutake is not seen to disclose or suggest recognizing a travel path from each of the plurality of designated positions detected at the preceding time (or first step) to the corresponding one of the plurality of designated positions detected at the current time (or second step). Although Yasutake teaches comparing the position coordinates of old control objects with new control objects, the position coordinates of the old objects are either updated or removed when new objects appear. Without retaining the position coordinates of the old objects, no travel path can be constructed. Accordingly, Yasutake could not possibly describe recognizing a respective travel path from each of the plurality of designated positions detected at the preceding time to the corresponding one of the plurality of designated positions detected at the current time.

Based on the foregoing remarks, independent Claims 1, 153 and 155 are believed to be allowable over the applied references. Reconsideration and withdrawal of the § 102(b) and § 103(a) rejections are respectfully requested.

The other claims in the application are each dependent from the independent claims discussed above and are believed to be allowable over the applied references for at least the same reasons. Because each dependent claim is deemed to define an additional

aspect of the invention, however, the individual consideration of each on its own merits is respectfully requested.

In view of the foregoing, the entire application is believed to be in condition for allowance, and such action is respectfully requested at the Examiner's earliest convenience.

Applicants' undersigned attorney may be reached in our Costa Mesa, California office at (714) 540-8700. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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